

WHAT IS CLAIMED IS:

- 1 1. A frame for a shelter structure, comprising:
2 a plurality of poles arranged in intersecting relationship and forming a
3 plurality of pole crossings such that at least one four sided opening is formed having pole
4 crossings as vertices and sections of said poles as sides thereof;
5 each of said poles having a first terminal end and a second terminal
6 end;
7 each of said poles assuming a substantially arcuate shape under tension
8 with said first and second terminal ends of each pole terminating in a common plane to
9 thereby define an interior volume; and
10 at least one tension harness connected between diagonal vertices of
11 said opening.
- 1 2. A shelter structure comprising the frame of claim 1 and a membrane
2 connected to at least some of said poles to substantially shelter said interior volume.
- 1 3. The frame of claim 1 wherein said poles are arranged to form a
2 plurality of said four-sided openings.
- 1 4. The frame of claim 1 wherein said poles are arranged to define an
2 interior volume that is substantially dome-like in shape.
- 1 5. The frame of claim 1 including a tension harness connected between
2 each set of diagonal vertices of said opening.
- 1 6. The frame of claim 3 including at least one tension harness connected
2 between at least one set of diagonal vertices of each opening.
- 1 7. The frame of claim 3 including a tension harness connected between
2 each set of diagonal vertices of each opening.
- 1 8. The frame of claim 1 wherein said poles are substantially flexible and
2 resilient.
- 1 9. The frame of claim 1 wherein at least some pairs of intersecting poles
2 are connected together near at least some of said pole crossings.

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- 1 10. The frame of claim 1 wherein each pair of intersecting poles is
2 connected together near each of the pole crossings.
- 1 11. The frame of claim 1 wherein a plurality of four-sided openings are
2 formed, at least some of which are adjacent each other.
- 1 12. The frame of claim 11 having at least one tension harness connected
2 between the diagonal vertices of at least one pair of adjacent openings.
- 1 13. The frame of claim 11 having at least one tension harness connected
2 between the diagonal vertices of each pair of adjacent openings.
- 1 14. The frame of claim 11 having tension harnesses interconnecting the
2 diagonal vertices of all adjacent openings.
- 1 15. The frame of claim 11 having tension harnesses interconnecting the
2 diagonal vertices of all diagonally adjacent openings.
- 1 16. The frame of claim 1 having a free end of at least one tension harness
2 fastened to the common plane.
- 1 17. The frame of claim 1 having the free ends of each tension harness
2 fastened to the common plane.
- 1 18 The frame of claim 1 wherein said tension harness is constructed of
2 low stretch material.
- 1 19. The shelter structure of claim 2 wherein said tension harness is
2 integrally formed with said membrane.
- 1 20. The shelter structure of claim 2 wherein said tension harness is
2 connected to said membrane at a plurality of points.